

REMARKS

In response to the Office Action dated September 7, 2004, the Applicants request reconsideration. Claims 1-37, 53-56, 61-66, 68-69, 71-92, 95-129, 143-152, 154-157, 166-213, 229-232, 237-242, 244-246, and 248-309 are pending for examination, with claims 1, 26, 32, 53, 61, 65, 68, 71, 126, 143, 154, 166, 177, 202, 208, 229, 237, 241, 244, 248 and 306 being independent claims. Claims 32, 68, 126, 143, 154, 166, 208, 209, 244, 250 and 306 are amended herein.

A. Preliminary Matters

Applicants note that, in connection with the Office Action Summary sheet, there is no indication with respect to the drawings in item 10. Formal drawings were filed in the present application on July 11, 2002. Accordingly, Applicants would appreciate an indication of the status of the drawings.

Also, in connection with items 13 and 14 of the Office Action Summary sheet, there is no acknowledgement of any priority claims in the present application; however, indeed the present application claims priority to several applications. Accordingly, appropriate acknowledgement for priority claims is respectfully requested.

Applicants also note that on page 4 of the Office Action, reference is made to prior art not relied upon but considered pertinent to Applicant's disclosure, namely, Walters et al (US 5,895,986) and Yamashita et al (US 6,087,776). However, these two references do not appear on the form PTO-892 provided by the Examiner with the Office Action. Accordingly, Applicants submit herewith an Information Disclosure Statement (IDS) and Form PTO-1449 to cite these two references, so that they will be listed on the cover of a patent issuing from the present application.

Finally, Applicants point out that they have not yet received PTO-1449 forms initialed by the Examiner for IDSs previously filed on the following dates:

- August 5, 2002 (first listed reference to Minami)
- May 18, 2004 (first listed reference to Tokunaga)

Applicants would appreciate receiving at the Examiner's earliest convenience initialed copies of these PTO-1449 forms to indicate consideration by the Examiner of the cited references listed thereon.

B. Claim Objections

On page 2 of the Office Action, claims 250-251 and 253 are objected to as being allegedly misnumbered. Applicants note, however, that rather than these claims being misnumbered, a previous amendment to claim 250 inadvertently resulted in this claim depending from itself. In view of the foregoing, Applicants have amended claim 250 again to restore its former dependency on claim 248. This amendment is believed to address the indicated objection.

C. Claim Rejections under 35 U.S.C. §102

Claims 1, 26, 32, 53, 61, 65, 68, 71, 126, 143, 154, 166, 177, 202, 208, 229, 237, 241, 244, 248 and 306 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Hussein et al (U.S. Patent No. 5,519, 809). Applicants respectfully traverse these rejections.

1. Discussion of Hussein

Hussein is directed to a computer-aided system for displaying geographical information (Abstract). Hussein's system includes a globe (or map) associated with one or more lamps or spotlights to illuminate a particular geographic area of interest on the globe at the request of a user (col. 7, line 64 – col. 8, line 2). In various examples, one or more conventional light bulbs (e.g., incandescent white light sources) are disposed inside the globe, or outside the globe and directed onto its outer surface (col. 10, lines 1-3). The globe is equipped with various other components for orienting the direction of light generated by the sources to a particular area of interest on the globe (col. 9, lines 38-60).

In the system of Hussein, a conventional computer receives input from a user (e.g., voice activation, keyboard control, etc.) relating to a geographic area of interest on the globe. Software resident on the computer then executes various programs to associate user queries with a database of information relevant to the geographic areas of interest; for example, in response to a user query, the computer may control various motors or other equipment, as well as the lamps

associated with the globe, to rotate the globe to a desired position and illuminate the area of interest (col. 8, lines 49-60). Additionally, the executing programs may display on the computer screen text, graphics or video information to provide a multimedia presentation on the geographic area of interest (col. 9, lines 1-10). The computer also may control a video player, slide projector or other similar equipment to play or project other information relevant to the geographic area of interest (col. 10, lines 30-35).

2. Independent Claims 1 and 177

Applicants' claim 1 is directed to a method of providing illumination in coordination with a display screen. The method comprises providing a source of computer application content for display on a display screen, providing an illumination source *for illuminating an environment that is related to the display screen*, and coordinating the illumination source to illuminate the environment in relationship to the computer application content on the display screen. Claim 177 is an independent apparatus (system) claim that closely tracks the language of independent method claim 1.

Husseiny does not disclose or suggest the method and system of Applicants claims 1 and 177, respectively. In particular, Husseiny fails to disclose or suggest *illuminating an environment that is related to a display screen*, as recited in these claims. Rather, Husseiny merely discloses that a specific portion of a surface of a globe or map, representing a geographic area of interest, is illuminated while information pertaining to that geographic area is displayed on a computer monitor. Thus, Husseiny does not *illuminate an environment* related to a display screen; instead Husseiny provides specific *local illumination* on a globe or map that corresponds to the information *content* displayed on a computer monitor. Nowhere in the reference does Husseiny make any disclosure or suggestion that the illumination specifically directed on the globe or map also may provide general ambient illumination in an environment around the computer monitor.

For at least the foregoing reasons, claims 1 and 177 patentably distinguish over Husseiny are believed to be in condition for allowance. Therefore, the rejections of claims 1 and 177 under 35 U.S.C. §102(b) as allegedly being anticipated by Husseiny should be withdrawn.

Claims 2-25 and 178-201 depend from one of claims 1 and 177 and are allowable based at least upon their dependency.

3. Independent Claims 26 and 202

Applicants' claim 26 is directed to a method of illumination, comprising providing an illumination source capable of illuminating an environment with a plurality of colors, providing a control system for controlling the illumination source, and configuring the control system to accept a signal related to content displayed on a display screen. Claim 202 is an independent apparatus (system) claim that closely tracks the language of independent method claim 26.

Husseiny fails to disclose or suggest any feature relating to illuminating an environment with a plurality of colors, as recited in claims 26 and 202. Rather, Husseiny merely discloses illuminating a specific portion of a globe or map with light generated by conventional light bulbs (i.e., generally white light). Husseiny is completely silent with respect to any other type of illumination. For at least this reason, claims 26 and 202 patentably distinguish over Husseiny and are in condition for allowance. Therefore, the rejections of these claims as allegedly being anticipated by Husseiny should be withdrawn.

Claims 27-31 and 203-207 depend from one of claims 26 and 202 and are allowable based at least upon their dependency.

4. Independent Claims 32 and 208

Applicants' claim 32, as amended, is directed to a method of providing a control signal for an illumination system. The method comprises providing content for a computer application including a display on a computer screen, providing the control signal adapted to control an illumination system to generate at least one time-varying lighting effect, and generating the control signal such that the at least one time-varying lighting effect is coordinated with the content. Claim 208 is an independent apparatus (system) claim that closely tracks the language of independent method claim 32.

Husseiny fails to disclose or suggest an illumination system that generates at least one time-varying lighting effect, as recited in claims 32 and 208. Rather, Husseiny merely discloses static illumination of a particular geographic area of interest on a globe or map pursuant to some type of user instruction or request. Accordingly, claims 32 and 208 patentably distinguish over Husseiny and are in condition for allowance.

Claims 33-37 and 209-213 depend from one of claims 32 and 208 and are allowable based at least upon their dependency.

5. Independent Claims 53 and 229

Applicants' claim 53 is directed to a method of illumination in a virtual reality environment. The method comprises providing a display screen for displaying virtual reality content in at least a portion of the virtual reality environment, providing a lighting system for illuminating at least a portion of the virtual reality environment, and coordinating illumination from the lighting system with the virtual reality content. Claim 229 is an independent apparatus (system) claim that closely tracks the language of independent method claim 53.

Husseiny completely fails to disclose or suggest any feature at all relating to virtual reality, virtual reality content, virtual reality environments, and the like. As would be readily appreciated by one of ordinary skill in the art, the terms "virtual reality" refer to a computer simulation of a real or imagined environment that can be experienced visually in the three dimensions of width, height and depth. One of the simplest forms of virtual reality content for display on a computer monitor is a three-dimensional image that can be explored interactively at a personal computer, usually by manipulating keys, a mouse, or a joystick, for example, so that the content of the image moves in some direction or zooms in or out. In this manner, an interactive experience may be provided visually in full real-time motion. Again, Husseiny is completely silent with respect to any such features. For at least this reason, claims 53 and 229 patentably distinguish over Husseiny and are in condition for allowance. Therefore, the rejections of claims 53 and 229 as allegedly being anticipated by Husseiny should be withdrawn.

Claims 54-56 and 230-232 depend from one of claims 53 and 229 and are allowable based at least upon their dependency.

6. Independent Claims 61 and 237

Applicants' claim 61 is directed to a method of modeling, comprising providing a computer-based representation of a solid model in a virtual environment, wherein the representation includes a capability for modeling an effect of light illuminating the solid model. The method also comprises providing a controller for a light system, wherein the controller is adapted to control the light system to illuminate the solid model in a real environment in correspondence with the modeled effect of the light in the virtual environment. Claim 237 is an

independent apparatus (system) claim that closely tracks the language of independent method claim 61.

Husseiny completely fails to disclose or suggest the method and system respectively recited in claims 61 and 237. In particular, nowhere in the reference does Husseiny disclose or suggest a computer-based representation of a solid model in a virtual environment, let alone any of the remaining features recited in these claims. For at least this reason, claims 61 and 237 patentably distinguish over Husseiny and are in condition for allowance. Therefore, the rejections of claims 61 and 237 as allegedly being anticipated by Husseiny should be withdrawn.

Claims 62-64 and 238-240 depend from one of claims 61 and 237 and are allowable based at least upon their dependency.

7. Independent Claims 65 and 241

Applicants' claim 65 is directed to a method of simulating an environment of a real world situation. The method comprises establishing a simulated environment corresponding to an environment of the real world situation, providing a lighting system for illuminating the simulated environment, and controlling the lighting system to illuminate the simulated environment in a manner corresponding to illumination conditions typical of the real world environment. Claim 241 is an independent apparatus (system) claim that closely tracks the language of independent method claim 65.

Husseiny completely fails to disclose or suggest the method and system respectively recited in claims 65 and 241. In particular, nowhere in the reference does Husseiny disclose or suggest a simulated environment corresponding to an environment of the real world situation, or a lighting system to illuminate the simulated environment in a manner corresponding to illumination conditions typical of the real world environment. For at least this reason, claims 65 and 241 patentably distinguish over Husseiny and are in condition for allowance. Therefore, the rejections of claims 65 and 241 as allegedly being anticipated by Husseiny should be withdrawn.

Claims 66 and 242 depend from claims 65 and 241, respectively, and are allowable based at least upon their dependency.

8. Independent Claims 68 and 244

Applicants' claim 68, as amended, is directed to a method of illumination, comprising providing a display screen for displaying content of a computer application, providing a lighting system for illuminating an environment of a user of the computer application with multi-color illumination, providing a surface for receiving the multi-color illumination from the lighting system, from which the user perceives at least some of the multi-color illumination in the environment, and coordinating the multi-color illumination of the surface with execution of the content of the computer application. Claim 244 is an independent apparatus (system) claim that closely tracks the language of independent method claim 68.

As discussed above in connection with claims 26 and 202, Hussein fails to disclose or suggest any feature relating to illuminating an environment with multi-color illumination, as recited in claims 68 and 244. Rather, Hussein merely discloses illuminating a specific portion of a globe or map with light generated by conventional light bulbs (i.e., generally white light). Hussein is completely silent with respect to any other type of illumination. For at least this reason, claims 68 and 244 patentably distinguish over Hussein and are in condition for allowance.

Claims 69 and 245-246 depend from one of claims 68 and 244 and are allowable based at least upon their dependency.

9. Independent Claims 71 and 248

Applicants' claim 71 is directed to a method of controlling illumination in an environment of a visual display screen, comprising providing an illumination source for producing illumination comprising a plurality of colors, obtaining a signal related to content displayed on the display screen, providing a control system for controlling the illumination source, and controlling the illumination source to illuminate the environment in coordination with the content displayed on the display screen. Claim 248 is an independent apparatus (system) claim that closely tracks the language of independent method claim 71.

For reasons similar to those discussed above in connection with claims 26 and 202 (as well as claims 68 and 244), claims 71 and 248 are believed to be in allowable condition. Claims 72-92, 95-125, and 249-305 depend from one of claims 71 and 248 and are allowable based at least upon their dependency.

10. Independent Claims 126 and 306

Applicants' claim 126, as amended, is directed to a method of facilitating illumination control, comprising providing a control system for an illumination source configured to provide variable color light, adapting the control system to receive a signal representative of visual content displayed on a display screen, and adapting the control system to control the illumination source to generate the variable color light in coordination with the visual content. Claim 306 is an independent apparatus (system) claim that generally tracks the language of independent method claim 126.

For reasons similar to those discussed above in connection with claims 26 and 202 (as well as claims 68 and 244), claims 126 and 306 are believed to be in allowable condition. Claims 127-129 and 307-309 depend from one of claims 126 and 306 and are allowable based at least upon their dependency.

11. Independent Claim 143

Applicants' independent claim 143, as amended, is directed to a screen for use with a lighting system. The screen comprises a frame designed to be placed in proximity to a user of a computing system, and a material mounted on the frame, wherein the material is arranged to reflect illumination produced by the lighting system such that the user of the computing system perceives the illumination in an ambient environment around the computing system.

As discussed above in connection with claims 1 and 177, Hussein fails to disclose or suggest a feature of reflecting illumination such that a user perceives the illumination in an ambient environment around a computing system. Again, Hussein merely discloses that a specific portion of a surface of a globe or map, representing a geographic area of interest, is illuminated while information pertaining to that geographic area is displayed on a computer monitor. Thus, Hussein does not *illuminate an ambient environment around a computing system*; instead Hussein provides specific *local illumination* on a globe or map. Accordingly, claim 143 patentably distinguishes over Hussein and is in condition for allowance.

Claims 144-152 depend from claim 143 and are allowable based at least upon their dependency.

12. Independent Claim 154

Applicants' claim 154 is directed to a method for visualizing relative locations of virtual objects within a virtual environment. The method comprises providing a computing device, generating a virtual environment on the computing device, the virtual environment containing a plurality of virtual objects, associating with at least one of the plurality of virtual objects illumination from a lighting fixture, and visualizing the relative location of the virtual object by the positioning of the illumination.

The Office Action point to no teaching whatsoever in Husseiny relating to a virtual environment or a virtual object, as recited in claim 154; in fact, Husseiny is completely silent in this regard. For at least this reason, claim 154 patentably distinguishes over Husseiny and is in condition for allowance. Claims 155-157 depend from claim 154 and are allowable based at least upon their dependency.

13. Independent Claim 166

Applicants' claim 166 is directed to a method of providing illumination in coordination with display of content on a display screen. The method comprises displaying computer game content on the display screen, and providing an illumination source for illuminating an environment that is related to the display screen, wherein the illumination source is adapted to generate a plurality of colors. The method further includes coordinating the illumination source to illuminate the environment in relationship to the computer game content on the display screen, wherein coordinating the illumination source uses the control system in response to a signal obtained from a computer game.

As discussed above, Husseiny fails to disclose or suggest an illumination source adapted to generate a plurality of colors. Moreover, Husseiny is completely silent with respect to computer games or computer game content displayed on a display screen, as recited in claim 166. For at least these reasons, claim 166 patentably distinguishes over Husseiny and is in condition for allowance.

Claims 167-176 depend from claim 166 and are allowable based at least upon their dependency.

D. Claim Rejections under 35. U.S.C. §103

Claims 2-25, 27-31, 33-37, 53-56, 65-66, 72-125, 126-129, 144-152, 155-157, 167-176, 178-201, 203-207, 209-213, 229-232, 242, 245-246, 249-305 and 307 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over Husseiny. Applicants respectfully traverse these rejections. Each of the indicated claims depends from what is believed to be an allowable independent claim, as discussed above in section C. Accordingly, these rejections are believed to be moot. Applicants reserve the right, however, to discuss in greater detail the rejections under 35 U.S.C. §103(a) if deemed necessary in the future.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50/2762.

Respectfully submitted,
Kevin J. Dowling, et al., Applicants

By: 

Joseph Teja, Jr., Reg. No. 45,157
LOWRIE, LANDO & ANASTASI, LLP
One Main Street
Cambridge, Massachusetts 02142
United States of America
Telephone: 617-395-7000
Facsimile: 617-395-7070

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